

Announcement of the Workshop

## Science with ALMA Band 5 (163–211 GHz)

24–25 May 2010, Osservatorio Astronomico di Roma, Italy

There is increasing interest in observations at frequencies between 163 and 211 GHz (ALMA Band 5) for both Galactic and extragalactic science. A key application is high resolution imaging of the water line at 183 GHz in Galactic and nearby extragalactic sources. In addition, the 158 micron line of C<sup>+</sup> from objects at redshifts between 8.0 and 10.6 will appear in the band, opening up the possibility of probing the earliest epoch of galaxy formation.

The recent launch of Herschel and the imminent commissioning of ALMA offer complementary approaches: Herschel will allow spectroscopy free from absorption by water in the Earth's atmosphere, but at low spatial resolution, whereas ALMA observations will provide very high spatial resolution.

The European Union is funding the production of six Band 5 receivers for ALMA through the FP6 Enhancement Programme, together with the development of advanced phase correction and mapping techniques to support these challenging observations. The receivers will be delivered to ALMA in 2010–2011. The

ALMA Project will be seeking proposals for enhancement of the instrument in the near future. These are likely to include the development of a full set of Band 5 receivers (66 + spares).

The aims of the workshop are:

- to assess the potential of ALMA Band 5 for both Galactic and extragalactic applications;
- to inform the community of the opportunities for observing with the initial set of Band 5 receivers;
- to develop synergies with the Herschel mission;
- to discuss technical approaches to the production of a full set of receivers;
- to evaluate approaches to calibration and data reduction for the band.

The primary output will be a science case for a full set of Band 5 receivers on ALMA, to be submitted to arXiv.

Scientific Organising Committee:

Paola Caselli (Leeds), Jose Cernicharo (Madrid), Robert Laing (ESO, chair), Roberto Maiolino (Rome), Leonardo Testi (ESO), Fabian Walter (Heidelberg).



The workshop will take place at the Osservatorio Astronomico di Roma on 24 and 25 May 2010. There will be a small number of invited reviews, together with ample time for contributed papers and discussion. We anticipate a small, focused meeting with approximately 50 participants.

Limited financial support (primarily for young researchers from EU institutions) will be available from the EU ALMA Enhancement Programme. There will be no registration fee.

Further details are available at <http://web.oa-roma.inaf.it/meetings/AlmaBand5/Home.html>.



Credit: ESO/Ueli Weilenmann

Adriaan Blaauw, former Director General (1970–74), visited Paranal in February 2010 and is shown (centre) next to one of the VLT Unit Telescopes and in discussion with the current Director General, Tim de Zeeuw (right) and the Director of the La Silla Paranal Observatory, Andreas Kaufer (left).